REMARKS

I. Status of the Application

In view of the above amendments and the following remarks, reconsideration of the rejections and objections set forth in the Office Action of August 9, 2010 is respectfully requested. Claim 1 has been amended, and no new matter has been added. Claims 1-2, 4, 6-10, 12-14, and 16-18 are currently pending in the application.

II. Prior Art Rejections

Currently, claims 1-2, 4, 6-7, 10, 13-14, and 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Phillips et al. (US 2004/0101676), claims 8, 14, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Phillips et al. in view of Kraus et al. (US 2002/0123235), and claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Phillips et al. in view of Winnik et al. (US 5,286,286).

Claim 1 is patentable over Phillips et al., Kraus et al., and Winnik et al. for the following reasons. Claim 1 recites a method for the production of an antifalsification identification element including at least one layer reflecting electromagnetic waves, one spacer layer and one layer formed of metallic clusters, the method comprising: applying a partial layer or an all-over layer which reflects electromagnetic waves onto a first carrier substrate; after said applying the layer which reflects electromagnetic waves, applying at least one partial polymeric layer and/or all-over polymeric layer of defined thickness onto the first carrier substrate to form a spacer layer; modifying the spacer layer by a process selected from a group consisting of a PVD process, a CVD process, and treatment with oxidizing fluids; and applying a layer formed of metallic clusters onto a second carrier substrate the layer formed of metallic clusters being

produced by a method of vacuum technology or by solvent-based systems, wherein after said applying the layer which reflects electromagnetic waves and said applying the polymeric layer, and after said applying the layer formed of metallic clusters onto the second carrier substrate, the first carrier substrate and the second carrier substrate are connected such that the layer formed of metallic clusters is applied to the spacer layer to form the antifalsification identification element.

On page 3 of the Office Action, it is asserted that the Phillips et al. reference discloses a layer of metallic clusters as required by claim 1. Specifically, lines 8 and 9 of page 3 assert: "Phillips et al. teaches that the absorber layer may be formed of metals mixed in a dielectric matrix (paragraph [0064]), which would form metallic clusters." To the contrary, the absorber layer described in paragraph 0064 of Phillips et al. does not contain metallic clusters, as discussed in more detail below. Because Phillips et al. does not disclose applying a layer formed of metallic clusters, Phillips et al. cannot meet the requirements of claim 1.

As is clear from Walter et al. (US 2005/0001038), which was previously applied in the present application and antedated by the response of July 19, 2010, the term "metallic cluster" has a recognized meaning in the art. In particular, it is clear from the distinct absorption characteristics discussed in paragraph 0005 that the term "metallic clusters" has a particular meaning in the art which is not met by merely providing a continuous thin metal layer. Walter et al. discloses that an absorber layer having metallic clusters is different from that of a conventional absorber layer, in that the metallic clusters provide "substantially more intense angle-dependent absorption," and also discloses that the clusters can be formed in "discrete islands with a size of at most 100 nm." As such, it is clear that the term "metallic cluster," as used in the Walter et al. reference and the present application, refers to "[c]lusters [which] are aggregates of atoms (or molecules) containing between three and a few thousand atoms…." (see

the definition of "atom cluster," http://encyclopedia2.thefreedictionary.com/, retrieved January 4, 2011.) In addition to the clearly distinct technical meaning evidenced by Walter et al., several articles are submitted herewith evidencing that the term "metallic clusters" refers to an accumulation of atoms or molecules having a number of atoms between 3 and several thousand.[1]

In contrast to the claimed metallic clusters, Phillips et al. only discloses the conventional absorber layer. For instance, paragraph 00063 discloses that the absorber layer is formed by physical vapor deposition, sputtering, or the like. Sputtering of a metal deposition target would not produce the claimed metallic clusters, but instead would yield a continuous thin layer of metal. This continuous thin layer of metal is a structural configuration entirely different from a layer of metallic clusters. Because Phillips et al. does not disclose applying a layer formed of metallic clusters onto the spacer layer, Phillips et al. cannot meet the requirements of claim 1.

Additionally, it is noted that in lines 11 through 15 on page 3 of the Office Action, a incongruous interpretation of the Phillips et al. reference is explained. It is submitted that the amendments to claim 1 clearly preclude this interpretation, as claim 1 requires applying the layer which reflects electromagnetic waves onto a first carrier substrate, applying the layer formed of metallic clusters onto a second carrier substrate, and after these two applying steps, the first carrier substrate and the second carrier substrate are connected. In contrast, paragraph 0080 of Phillips et al. clearly discloses: "The optical coating 16 is formed on a carrier sheet 64 prior to being laminated to substrate 12;" in other words, the absorber layer 18 is applied to the substrate (64) together with the dielectric layer (20) and the reflector layer (22), and thereafter the

[1] Definition of "atom clusters," http://encyclopedia2.thefreedictionary.com/, retrieved January 4, 2011.
Nano Letters 2003, vol. 3, No. 3, pages 305-307, "Reduced Metallic Properties of Ligand-Stabilized Small Metal Clusters," Zhang et al., Feb. 8, 2003.
Advanced Materials 10, No. 7, "Metal Clusters and Colloids," Schmid et al. 1998.
Article on Clusters, http://en.wikipedia.org/wiki/Cluster_chemistry, retrieved January 4, 2011.
Article on Clusters, http://en.wikipedia.org/wiki/Cluster_(physics), retrieved January 4, 2011.

substrate (12) is applied. As such, the Phillips et al. reference cannot meet the requirements of claim 1.

Further, it appears as though there would have been no reason to modify any of the prior art of record to yield a configuration which would meet the requirements of claim 1. It is thus submitted that the invention of the present application, as defined in claim 1, is not anticipated nor rendered obvious by the prior art, and yields significant advantages over the prior art. Allowance is respectfully requested.

Claims 4, 6-10, and 12-14 depend, directly or indirectly, from claim 1 and are thus allowable for at least the reasons set forth above in support of claim 1. Claim 2 requires limitations similar to the above discussed limitations of claim 1, including applying a layer formed of metallic clusters, and it is submitted that claim 2 is allowable for at least some of the reasons set forth above with respect to claim 1. Claims 16-18 depend from claim 2 and are thus allowable at least by virtue of their dependencies.

In view of the foregoing amendments and remarks, inasmuch as all of the outstanding issues have been addressed, it is respectfully submitted that the present application is now in condition for allowance, and action to such effect is earnestly solicited. Should any issues remain after consideration of the response, however, the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

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